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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/686,524	10/16/2003	Seong Jin Jo	9988.064.00-US	3986
30827 7590 05/02/2007 MCKENNA LONG & ALDRIDGE LLP 1900 K STREET, NW WASHINGTON, DC 20006			EXAMINER PERRIN, JOSEPH L	
			ART UNIT 1746	PAPER NUMBER
			MAIL DATE 05/02/2007	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

**Office Action Summary**

Application No.

10/686,524

Applicant(s)

JO, SEONG JIN

Examiner

Joseph L. Perrin, Ph.D.

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 17 April 2007.  
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1-20 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:  
1. ☒ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_.  
5) ☐ Notice of Informal Patent Application  
6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 21 March 2007 has been entered.

### ***Response to Arguments***

2. Applicant's arguments filed 21 March 2007 have been fully considered but they are not persuasive.

3. Turning to the rejection(s) of the claims under 35 U.S.C. § 102, it is noted that the terminology in a pending application's claims is to be given its broadest reasonable interpretation (*In re Zletz*, 893 F.2d 319, 321, 13 USPQ2d 1320, 1322 (Fed. Cir. 1989)) and limitations from a pending application's specification will not be read into the claims (*Sjolund v. Musland*, 847 F.2d 1573, 1581-82, 6 USPQ2d 2020, 2027 (Fed. Cir. 1988)). Anticipation under 35 U.S.C. § 102 is established only when a single prior art reference discloses, either expressly or under the principles of inherency, each and every element of a claimed invention. See *Constant v. Advanced Micro-Devices, Inc.*, 848 F.2d 1560, 1570, 7 USPQ2d 1057, 1064 (Fed. Cir.), cert. denied, 488 U.S. 892

(1988); *RCA Corp. v. Applied Digital Data Sys., Inc.*, 730 F.2d 1440, 1444, 221 USPQ 385, 388 (Fed. Cir. 1984). Moreover, anticipation by a prior art reference does not require either the inventive concept of the claimed subject matter or the recognition of properties that are inherently possessed by the prior art reference. *Verdegaal Brothers Inc. v. Union Oil co. of California*, 814 F.2d 628, 633, 2 USPQ2d 1051, 1054 (Fed. Cir. 1987), cert. denied, 484 U.S. 827 (1987). A prior art reference anticipates the subject matter of a claim when that reference discloses each and every element set forth in the claim (*In re Paulsen*, 30 F.3d 1475, 1478-79, 31 USPQ2d 1671, 1673 (Fed. Cir. 1994) and *In re Spada*, 911 F.2d 705, 708, 15 USPQ2d 1655, 1657 (Fed. Cir. 1990)); however, the law of anticipation does not require that the reference teach what Applicant is claiming, but only that the claims "read on" something disclosed in the reference. *Kalman v. Kimberly-Clark Corp.*, 713 F.2d 760, 772, 218 USPQ 781, 789 (Fed. Cir. 1983), cert. denied, 465 U.S. 1026 (1984) (and overruled in part on another issue), *SRI Intel v. Matsushita Elec. Corp. Of Am.*, 775 F.2d 1107, 1118, 227 USPQ 577, 583 (Fed. Cir. 1985). Also, a reference anticipates a claim if it discloses the claimed invention such that a skilled artisan could take its teachings in combination with his own knowledge of the particular art and be in possession of the invention. See *In re Graves*, 69 F.3d 1147, 1152, 36 USPQ2d 1697, 1701 (Fed. Cir. 1995), cert. denied, 116 S.Ct. 1362 (1996), quoting from *In re LeGrice*, 301 F.2d 929, 936, 133 USPQ 365, 372 (CCPA 1962).

4. Re the §102 rejection over DURAZZANI, applicant argues that DURAZZANI does not disclose the second material being "blended with" the first material, namely the

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counterweights and plastic shells of the disclosed drum. The Examiner disagrees. Given the broadest reasonable interpretation, the disclosure of DURAZZANI clearly teaches the combination of a first material (i.e. counterweights) and second material (i.e. plastic shell) thereby forming a front outer tub which is readable on applicant's broadly claimed scope (a second material "combined with" a first material reads on two separate materials combined to form the tub or two materials combined in a polymer blend to form a tub). Moreover, as cited in the rejection DURAZZANI teaches that it is known to both combine calcium carbonate by inserting into the injection molded plastic or forming the outer tub by "calcium carbonate ... added as a filler to plastic to reach desired properties of the final plastic material or part" which one having ordinary skill in the art would clearly understand as readable on a metal powder (calcium carbonate) blended with a plastic thereby forming the tub (see col. 3, lines 55-65). Clearly, while combining calcium carbonate and the plastic tub by insertion is the main embodiment of DURAZZANI, there is also disclosed the integration of calcium carbonate into plastic as a filler which would clearly understood by one having ordinary skill in the art that fillers are added to plastics by blending. Either way (i.e. separately combined or integrally blended), both provide the same property or functional purpose of providing a counterweight or ballast effect in the front outer tub, as evidenced by DURAZZANI, and thus neither manner of combining calcium carbonate with plastic to form a tub portion having higher weight/density is considered a patentable limitation in view of DURAZZANI.

5. Regarding applicant's argument that DURAZZANI discloses "grinding" materials together and not a blended plastic, this is not persuasive because this is not what is taught by DURAZZANI. In col. 3, lines 4-62, DURAZZANI expressly discloses combined plastic shells and calcium carbonate ballasts/counterweights in a washing machine tub. DURAZZANI further teaches that it is also known that "calcium carbonate ... can be added as a filler to plastic to reach desired properties of the final plastic material or part" (see col. 3, lines 61-65) and further that such plastics with calcium carbonate filler can be grinded for recycling purposes. Thus, the fact that the blended plastic may be grinded in a recycling process does not negate the fact that it is known to add calcium carbonate as filler in plastic for desired properties. Thus, the grinding process has nothing to do with the disclosed filler added to plastic in DURAZZANI. One in the tub manufacturing art would immediately recognize that such filler addition to a plastic tub would read on a blended plastic since this is a common knowledge process in the plastic processing industry. Even if, assuming *arguendo*, one were to construe the invention of DURAZZANI as being somewhat limiting to separately combined calcium carbonate weights in plastic shells, given the teachings of DURAZZANI that it is well known to add calcium carbonate as filler to plastics for its desired properties the position is taken that it would have been obvious to one having ordinary skill in the art to integrate the plastic and calcium carbonate by conventional plastics processing such as blending a filler with plastic to achieve the same properties of increasing weight in the plastic tub, particular since it has been held that forming in one piece an article which has formerly been formed in multiple pieces involves only routine skill in the art.

*Howard v. Detroit Stove Works*, 150 U.S. 164 (1893); *In re Larson*, 340 F.2d 965, 968, 144 USPQ 347, 349 (CCPA 1965). Accordingly, recitation of DURAZZANI reads on applicant's claimed invention.

6. Regarding the §103 rejections, applicant argues that since DURAZZANI fails as argued above these rejections must also fail. This is not persuasive for at least reasons indicated above.

### ***Claim Rejections - 35 USC § 102***

7. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

8. Claims 1-2, 5-8, 10-12, 15-18 & 20 are rejected under 35 U.S.C. 102(b) as being anticipated by, or in the alternative under 35 U.S.C. 103(a) as being obvious over DURAZZANI. Re claims 1, 2, 5-8, 10-12, 15-18 & 20, DURAZZANI discloses a washing machine having a plastic tub (1) including a front outer tub (8) having an open front and rear & a rear outer tub (3) having a closed end and an open end which couples to the front outer tub via connecting means (10/12), the front outer tub having a thickness greater than the rear outer tub (see entire document, for instance, Figures 1 & 3 and relative associated text). DURAZZANI further discloses forming the front outer tub via "traditional processing methods" (i.e. injection molding, see col. 1, lines 59-64) to include calcium carbonate either inserted inside the injection molded plastic or "as a filler to plastic" to provide a counterweight or ballast effect in the front outer tub (see, for instance, col. 3, lines 55-65). The Examiner notes that the specific gravity (density) of

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calcium carbonate is well known to be higher than conventional injection molded plastics (i.e. polypropylene, polyethylene, polyvinyl chloride, or the like) and, therefore, plastics combined with calcium carbonate necessarily must have a higher specific gravity or density. Re claims 2 & 12, the Examiner further notes that calcium carbonate reads on "metal powder" since calcium is an alkaline earth metal and calcium carbonate is a solid powder.

Even if, assuming *arguendo*, one were to construe the invention of DURAZZANI as being somewhat limiting to separately combined calcium carbonate weights in plastic shells, given the teachings of DURAZZANI that it is well known to add calcium carbonate as filler to plastics for its desired properties the position is taken that it would have been obvious to one having ordinary skill in the art to integrate the plastic and calcium carbonate by conventional plastics processing such as blending a filler with plastic to achieve the same properties of increasing weight in the plastic tub, particular since it has been held that forming in one piece an article which has formerly been formed in multiple pieces involves only routine skill in the art. *Howard v. Detroit Stove Works*, 150 U.S. 164 (1893); *In re Larson*, 340 F.2d 965, 968, 144 USPQ 347, 349 (CCPA 1965).



***Claim Rejections - 35 USC § 103***

9. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

10. Claims 3-4 & 13-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over DURAZZANI in view of TAMAI *et al.* or BULL *et al.* or KATAYAMA *et al.* Recitation of DURAZZANI is repeated here from above. Although DURAZZANI discloses using “heavy-weight materials other than concrete”, specifically calcium carbonate as a filler in plastic, to provide counterweight in a washing machine, DURAZZANI does not expressly disclose using other fillers such as aluminum based metal powder or iron based metal powder. Each of TAMAI *et al.* (col. 9, lines 24-42), BULL *et al.* (col. 4, line 64 – col. 5, line 11) & KATAYAMA *et al.* (col. 8, lines 16-24) teach that it is known to provide a molding plastic/polymer with various fillers including calcium carbonate, aluminum powder and iron powder to achieve desired properties. It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide any known filler having a higher specific weight (density) than the plastic/polymer used therewith since applicant has not disclosed that using any specific filler (i.e. calcium carbonate or iron or aluminum) solves any stated problem or is for any particular purpose and it appears that the invention would perform equally well with other known fillers having a known high density and the selection of any of these known equivalents to provide added counterweight in a washing machine tub would be within the level of ordinary skill in the art.

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11. Claims 9 & 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over DURAZZANI. Recitation of DURAZZANI is repeated here from above. Although DURAZZANI discloses the tub having a front outer tub with open front and rear combined with a rear outer tub with open front and closed rear, DURAZZANI does not expressly disclose a middle outer tub with open front and rear. It would have been obvious to one having ordinary skill in the art at the time the invention was made to separate the rear outer tub of DURAZZANI into two parts to form a middle outer tub and rear outer tub as claimed by applicant, since it has been held that constructing a formerly integral structure in various elements involves only routine skill in the art. *Nerwin v. Erlichman*, 168 USPQ 177, 179.

### ***Conclusion***

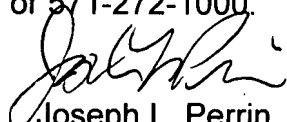
12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. U.S. Patent No. 5,733,644 to TANAKA et al., which teaches that it is well known in the plastics processing art to blend inorganic powder fillers, such as calcium carbonate, with plastics to achieve desired properties including increased density/weight.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph L. Perrin, Ph.D. whose telephone number is (571)272-1305. The examiner can normally be reached on M-F 7:00-4:30, except alternate Fridays.

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14. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael E. Barr can be reached on (571)272-1414. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

15. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
Joseph L. Perrin, Ph.D.  
Primary Examiner  
Art Unit 1746

JLP